HARMONY 4

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HARMONY 4

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DECEPTIVE RESOLUTIONS OF DOMINANT SEVENTH CHORDS

A deceptive resolution usually occurs in one of the following situations:

1. A dominant seventh which normally resolves to a specific diatonic chord goes somewhere else.

2. A repeated pattern in a particular piece of music is changed.

3. A familiar harmonic form (such as blues) is altered with an unusual chord of resolution.

Of these possibilities, the first is by far the most common.

PRIMARY DOMINANTS (Review)

The primary dominant and its substitute (V7/I and subV7/I) resolve deceptively when they go to any chord other than I. V7/I resolves deceptively more often than any other dominant 7th. and usually goes to one of the following chords: III-7, III-7(b5), V7/VI, VI-7, bIIImaj7, bVImaj7, bIImaj7, IV-7, #IV-7(b5)

After a deceptive resolution of V7/I, the progression usually returns to I in a familiar pattern of chords and root motion. The patterns have many variations, but the following are typical:

C:

G7	E-7 A7	D-7 G7	C	
	E-7(b5) A7(b9)	D-7 G7	C	
	E7 A7	D7 G7	C	
	A-7 D7	D-7 G7	C	
	Ebmaj7	Abmaj7 Dbmaj7	C	
	Abmaj7	Dbmaj7	C	
	Dbmaj7	C		
	F-7 Bb7	C		
	F#-7(b5) F-6	E-7 Eb7	D-7 G7	C

Secondary dominants and II V's in these patterns may of course be replaced by substitute dominants and chromatic II V's. A few possibilities:

G7	E-7 Eb7	D-7 Db7	C
	E-7 Eb7	Ab-7 Db7	
	E-7 A7	Ab-7 Db7	
	A-7 Ab7	D-7 Db7	
	A-7 Ab7	Ab-7 Db7	

SECONDARY DOMINANTS

Secondary dominants and their substitutes traditionally resolve down a perfect 5th or down a half-step to the appropriate ***diatonic*** chord. Any other resolution is considered deceptive, even though deceptive resoltuions are not unusual, especially in contemporary jazz and fusion music.

The following resolutions, then, are considered "normal":

V7/II | II-7	subV7/II | II-7
V7/III | III-7	sub V7/III | III-7
V7/IV | IVmaj7	subV7/IV | IVmaj7
V7/V | V7	subV7/V | V7
V7/VI | VI-7	subV7/VI | VI-7

An ***indirect*** resolution is ***not*** considered deceptive:

C: VI-7 V7/V II-7 V7/I

A-7 D7 | D-7 G7

Other exceptions to these "normal" resolution patterns will be considered in a future topic, "Special Function Dominant 7th Chords".

When a secondary dominant, or its substitute, resolves deceptively, the Roman numeral analysis is placed in parentheses.

F:

Fmaj7 | V7/II D7 → II-7 G-7 | C7 | Fmaj7

Fmaj7 | (V7/II) D7 - - → bVImaj7 Dbmaj7 | C7 | Fmaj7

Fmaj7 | subV7/II Ab7 - - → II-7 G-7 | C7 | Fmaj7

Fmaj7 | (subV7/II) Ab7 → bVImaj7 Dbmaj7 | C7 | Fmaj7

Please note that arrows and dotted arrows show the ***actual*** resolution of the dominant 7th (down a perfect 5th or down a half-step), and that parentheses only are used to indicate deceptive resolutions.

In the same way, brackets and dotted brackets show the ***actual*** root motion for II V patterns, and are not intended to indicate deceptive resolutions.

F:
Fmaj7 | V7/V G7 | G-7 | C7 | Fmaj7

Fmaj7 | (V7/V) G7 | G-7 | Gb7 | Fmaj7

Fmaj7 | subV7/V Db7 | G-7 | C7 | Fmaj7

Fmaj7 | (subV7/V) Db7 | Db-7 | Gb7 | Fmaj7

Fmaj7 | subV7/V Db7 | Db-7 | C7 | Fmaj7

A complete analysis for the examples above would use the Roman numeral II-7 for G-7 (the ***diatonic*** II-7), but not for Db-7. The technical term for Db-7 would be, "the ***related*** II-7 of subV7/I," but a bracket or dotted bracket is sufficient. The analyses below are complete:

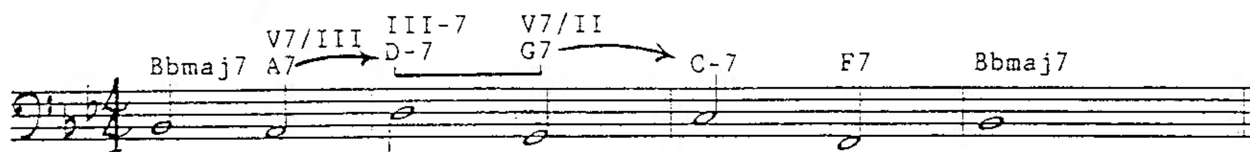
F:
Imaj7 Fmaj7 | V7/V G7 | II-7 G-7 | V7/I C7 | Imaj7 Fmaj7

Imaj7 Fmaj7 | (subV7/V) Db7 | II-7 G-7 | subV7/I Gb7 | Imaj7 Fmaj7

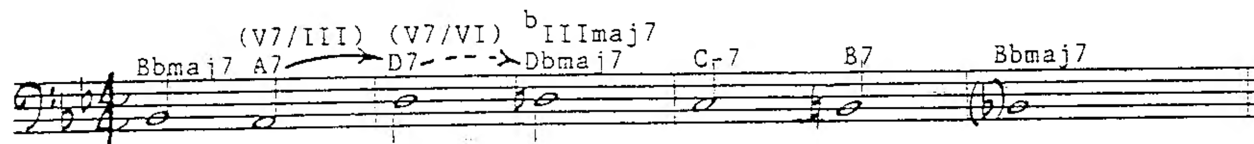
Imaj7 Fmaj7 | (subV7/V) Db7 | Db-7 | subV7/I Gb7 | Imaj7 Fmaj7

Imaj7 Fmaj7 | V7/V G7 | Db-7 | V7/I C7 | Imaj7 Fmaj7

Some deceptive resolutions are only slightly deceptive and very subtle. For example, a secondary dominant may resolve to the correct root, but the wrong chord *type*. In the key of B♭, A7 is V7/III which normally resolves to III-7.



If V7/III resolves to a dominant 7th on the same root, a parenthetical analysis is required.

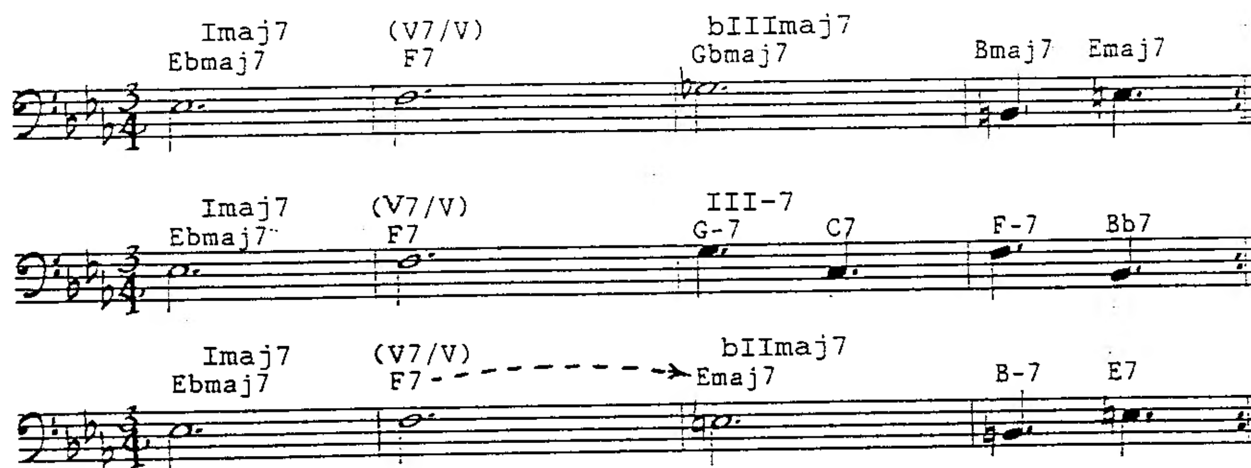


ROOT MOTION

In contemporary music, the most common forms of root motion in deceptive resolutions of secondary dominants are, 1) up a half-step, 2) up a whole step, and 3) down a half-step. For example, V7/V may normally resolve to V either directly or indirectly.



The examples below show three common deceptive root motion patterns from V7/V.



MODULATION

A deceptive resolution sometimes results in a modulation. When this occurs, a pivot chord analysis becomes necessary since the dominant 7th chord assumes a new meaning in the second key. The example below includes a pivot chord modulation from F to A^b, as well as several other deceptive resolutions of secondary dominants. Root motion patterns are typical.

(V7/VI)
F: Imaj7 Fmaj7 C7 Fmaj7 ↑-3 Ab: subV/I A7(b13) - - - → Imaj7 Abmaj7 Eb7

Abmaj7 C7(b9) Dbmaj7 D-7(b5) G7(b9) Abmaj7 F7(b13)

Emaj7 Eb7(#9) Abmaj7

CHORD SCALES

The chord scale for a deceptively resolving secondary dominant is derived from the parenthetical analysis, regardless of its resolution. This remains the rule, even in a modulation.

In the preceding example, the A7 in the second measure takes a chord scale for V7/VI (Mixolydian ^{b}9, ^{b}13 or altered), ***not*** Lydian ^{b}7 for subV7/I.

This application of chord scales reinforces the original meaning of the chord, and therefore enhances the deceptiveness of the resolution.

Although occasional exceptions to this principle can be found, it is nearly always the most effective way to treat deceptive resolutions.

CONTIGUOUS II V's

The II V pattern is sometimes used in ascending rather than descending motion. When this occurs, functional analysis (Roman numerals in a key) is no longer relevant. The chord progression is justified on the the basis of continuity and repetition in the melody, harmony and root motion. This is known as "non-functional" analysis.

In the following example, the E-7 A7 pattern is contiguous to (or "next to") the F-7 Bb7 pattern, but has no functional relationship to the other chords in the key of Eb. It is therefore called a ***contiguous*** II V.

---Contiguous---
E-7 A7 | II-7 F-7 V7/I Bb7 | Imaj7 Ebmaj7

A contiguous II V is usually a whole or half step away from another II V which is analyzable in a key. In the preceding example, the E-7 was a half-step away from the F-7. In the following example, the A7 is a half step away from the Bb-7.

--Contiguous---
E-7 A7 | II-7 Bb-7 V7/I Eb7 | Imaj7 Abmaj7

A contiguous II V may be interpolated in an otherwise functional progression. In these cases, the dominant 7th chord frequently resolves in a normal way. In the following examples, the A-7 D7 pattern is reharmonized with a contiguous II V (Ab-7 Db7) which ***does*** resolve to the next II V.

F: #IV-7(b5) B-7(b5) IV-6 Bb-6 | III-7 A-7 V7/II D7 | G-7 C7 | Fmaj7

#IV-7(b5) B-7(b5) IV-6 Bb-6 | A-7 Ab-7 subV7/V Db7 | G-7 C7 | Fmaj7

#IV-7(b5) B-7(b5) IV-6 Bb-6 | Ab-7 subV7/V Db7 | G-7 C7 | Fmaj7

The next example involves a series of ascending II V's.

C: II-7 V7/I --Contiguous---- III-7 V7/II
D-7 G7 | Eb-7 Ab7 | E-7 A7 →

→ II-7 V7/I Imaj7
D-7 G7 → Cmaj7

The final example combines contiguous II V's with modulation and deceptive resolution.

-Contiguous- Eb: II-7 V7/I Imaj7
E-7 A7 | F-7 Bb7 → Ebmaj7

--Contiguous---- --Contiguous---
IV-7 (bVII7) Db: II-7 V7/I
Ab-7 Db7 | D-7 G7 | ↓2 Eb-7 Ab7 →

→ Imaj7 C-: II-7 V7/I I-
Dbmaj7 ↓-2 D-7 G7 → C-

SPECIAL FUNCTION DOMINANT SEVENTH CHORDS

The word "dominant" in harmonic theory can refer either to a ***type*** of chord or to the ***function*** of a chord. C7 is a dominant 7th (chord type), and as V7 in the key of F, it also has dominant function. As I7 in blues in C, however, it has ***tonic blues function***. I7 is therefore a special function dominant seventh.

A dominant seventh ***with*** dominant function normally resolves directly or indirectly to another chord whose root is down a perfect 5th (arrow) or down a half step (dotted arrow).

Direct Resolution: | A-7 Ab7 | G-7 C7 | Fmaj7 ||

| A-7 D7 | G-7 Gb7 | Fmaj7 ||

Indirect Resolution: | D-7 Db7 | Db-7 Gb7 | Fmaj7 ||

| D-7 Db7 | G-7 C7 | Fmaj7 ||

Substitute dominant function is a kind of dominant function, and is not considered "'special".

A chord with dominant function may also resolve deceptively without changing its functional analysis.

F: (V7/VI) (V7/V) subV7/I

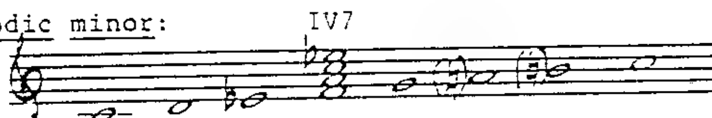
| Fmaj7 A7 | Bbmaj7 G7 | G-7 Gb7 | Fmaj7 ||

I7 and IV7

Special function dominants, on the other hand, are not deceptive resolutions. I7 in the blues sounds like the tonic chord, and IV7 sounds like the subdominant chord.

I7: Tonic blues function
IV7: Subdominant blues function

IV7 is also diatonic to melodic minor, and has subdominant function in that context as well.



The following examples use I7 and IV7:

Blues:
I7 C7 — IV7 F7 — I7 C7 — IV7 F7 — I7 C7

C minor:
I-6 C-6 — V7 G7(b13) — I-6 C-6 — IV7 F7 — I-6 C-6 — V7 G7 — I-6 C-6

bVII7

Another special function dominant, bVII7, is derived from natural minor.

Natural minor: bVII7

bVII7 normally resolves to I, and is closely related to the IV- chord in natural minor. For example, if the root of bVII7 is placed below IV-6, the resulting structure becomes bVII7.

C minor: IV-6 F-6 — bVII7 Bb7(9)

Since IV- (or IV-6 or IV-7) is the subdominant chord in natural minor, other chords closely related to it have ***subdominant minor function.*** Therefore, when either IV- or bVII7 resolves to I, it is called a subdominant minor cadence.

bVII7: Subdominant minor function.

IV-7 and bVII7 are frequently used together in a subdominant minor pattern.

	SDM	SDM*		
I-	IV-7	bVII7	I-	
| C-	| F-7	Bb7	| C-	||

* SDM means subdominant minor.

Two other diatonic natural minor chords are related to IV-:

II-7$^{(b5)}$ and ^{b}VImaj7

Natural minor:
II-7$^{(b5)}$ D-7$^{(b5)}$
^{b}VImaj7 Abmaj7

II-7(^{b5}) has the same chord tones as IV-6;
^{b}VImaj7 can be seen as an extension of IV-7.

C minor:
II-7$^{(b5)}$ D-7$^{(b5)}$
IV-6 F-6
^{b}VImaj7 Abmaj7
IV-7 F-7

These chords all have the common tone ^{b}6 (A^{b} in the key of C minor), and all are subdominant minor. Only ^{b}VII7, however, is a special function dominant 7th.

C minor:
SDM IV-
SDM ^{b}VII7
SDM II-7$^{(b5)}$
SDM IV-7
SDM ^{b}VImaj7

The process of ***modal interchange*** allows diatonic minor key chords to be used in the parallel major key (see <u>Harmony 2</u>). Subdominant minor chords are often used this way, especially in strong cadential patterns such as the one below.

Imaj7 Cmaj7
G-7
V7/IV C7
IVmaj7 Fmaj7

SDM IV-7 F-7
SDM ^{b}VII7 Bb7
Imaj7 Cmaj7

(Please note that the C7 above falls on a weak beat and functions as V7/IV, not as a tonic blues chord).

^{b}VI7:

^{b}VI7 is usually analyzed as subV7/V, with substitute dominant function.

sub V7/V

| Cmaj7 A-7 | A^{b}7 G7 | Cmaj7 ||

The same chord, however, has a reasonably common resolution to I of the key, creating a special function cadence: ^{b}VI7 to I.

E-7 Eb7 ^{b}VI7 Ab7 Imaj7 Cmaj7

The ^{b}VI7 chord is originally derived from chromatic harmony of the 19th century. Chromatic passing tones used between familiar voicings created fresh new melodic and harmonic sonorities such as the augmented 6th chords. The simple voicings below show a familiar pattern.

F/A C/G

6 3 6 4

6 6
3 4

In this example, traditional figured bass indications appear below the bass notes, showing the intervals between the bottom and upper voices. For an 18th or 19th century harpsichordist, the bass notes and figures were "chord symbols," sufficient to indicate this cadence from IV to I in C major.

Below, chromatic passing tones are added in the top and bottom voices creating an augmented 6th. The resulting voicing was called an Italian augmented 6th chord, which, spelled enharmonically, equals an A^{b}7 or ^{b}VI7 in the key of C.

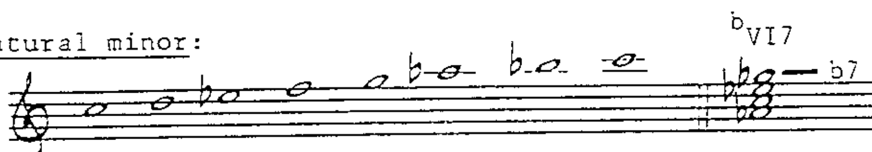
1) F/A C/G 2) IV F/A ^{b}VI7 Ab7 I C/G

aug6

6 6
3 4

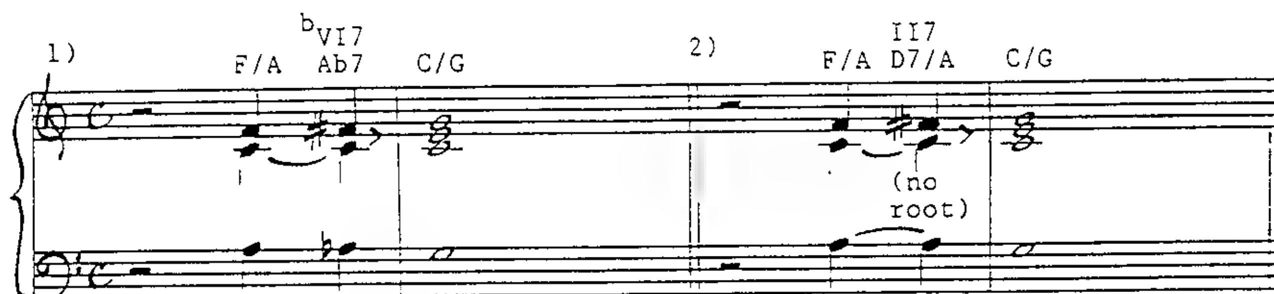
In contemporary practice bVI7 can resolve to I in either root position or second inversion, but it must resolve to I. The same chord resolving elsewhere is analyzed as subV7/V, as usual.

The root of bVI7 is the scale degree (b6) which all subdominant minor chords have in common. bVI7 is therefore closely related to the IV- chord, although not diatonic to a minor key. Since the b7th of the chord is not in natural minor, bVI7 has ***altered*** subdominant minor function.

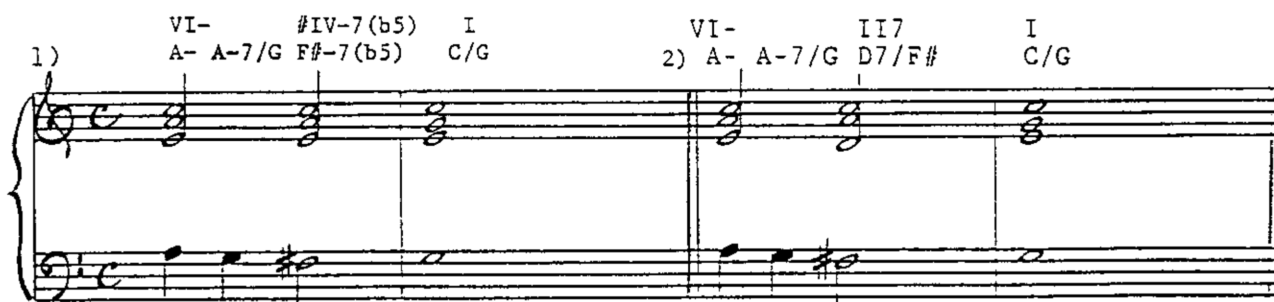


II7:

II7 is similar to bVI7 in several ways. It shares the same tritone, and is normally analyzed as V7/V, with secondary dominant function. The chord is analyzed as II7 primarily when it resolves directly to I, and this resolution involves chromatic motion from #4 to 5 of the key (comparable to the augmented 6th passing tone in bVI7).



II7 is even more closely related to #IV-7(b5) which, although not a dominant 7th, contains the same tritone, almost the same chord tones, and often uses the same resolution pattern to I over its 5th.



Like #IV-7(b5), a first inversion of II7 can also resolve with bass motion chromatically down to IV or IV-.

A- A-7/G II7 D7/F# IV F6 I C/E

The following resolution patterns, then, are available for II7:

1. II7 over its 3rd (1st inversion) may resolve to I over its 5th (2nd inversion) or to IV or IV-.

2. II7 in root position may resolve to I or I over its 5th.

If the same chord resolves in some other way, it is analyzed as V7/V.

II7 is related to IV major and #IV-7(b5) by both common tones and resolution patterns. Although non-diatonic, it is in the major key subdominant area and has ***altered subdominant major*** function. The triadic form of II major is also used, especially as a substitute for #IV-7(b5) with b13 in the melody (a difficult note to voice).

#IV-7(b13 b5)

1) Key of F: D-7 D-7/C B-7(b13 b5) IV-6 Bb-6

2) D-7 D-7/C II G/B IV-6 Bb-6

VII7:

The dominant chord on VII is usually analyzed as V7/III, with secondary dominant function.

C: F#-7(b5) V7/III B7(b9 b13) III-7 E-7 A7(b9 b13) D-7 G7(b9 b13) Cmaj7

When this chord resolves to I from a weak beat of short duration, it is sometimes simply a deceptive resolution of V7/III.

(V7/III)
F#-7(b5) B7(b9 b13) Imaj7 Cmaj7 Fmaj(#11) D-7 G7(b9 b13) Cmaj7

However, when the chord has a more prominent harmonic rhythm and resolves directly to I, it is analyzed with special function as VII7.

Cmaj7 VII7 B7 Cmaj7

Since VII7 is not associated with any particular area within the key, its function is simply ***cadential.***

The primary difference between VII7 and V7/III is that VII7 normally takes tensions ♮9 and ♮13, while V7/III takes b9 and b13.

SUMMARY OF SPECIAL FUNCTION DOMINANT SEVENTH CHORDS

Chord	Special Function	Special Function Chord Scale	Analysis with Dominant Function
I7	Tonic Blues	Blues, Mixolydian, Lydian b7	V7/IV
IV7	Subdominant Blues or Subdominant Melodic minor	Blues, Mixolydian, Lydian b7	subV7/III
bVII7	Subdominant minor	Lydian b7 in Major Mixolydian in minor	subV7/VI
bVI7	Altered Subdominant minor	Lydian b7	subV7/V
II7	Altered Subdominant Major	Mixolydian or possibly Lydian b7	V7/V
VII7	Cadential	Lydian b7 or Mixolydian	V7/III

MODAL HARMONY

All diatonic harmony can be called "modal" in the sense that it is derived from a given tonic mode or scale. The modal name for our major scale, for example, is "Ionian", one of the medieval church modes. When we refer to "modal" music, however, we mean music based on somewhat less familiar tonic modes, such as Dorian or Phrygian.

MINOR MODES

A review of the comparisons among the standard minor scales (or modes) is a useful starting point. You will recall that the diatonic triads and seventh chords from all three tonic minor scales are freely interchangeable in minor key chord progressions. They are listed below.

C NATURAL MINOR

I- II° bIII IV V- bVI bVII

I-7 II-7(b5) bIIImaj7 IV-7 V-7 bVImaj7 bVII7

C HARMONIC MINOR

* A new diatonic chord

I- II° bIII+* IV- V* bVI VII°*

I-(maj7) II-7(b5) bIIImaj7(#5)* IV-7 V7(b9)* bVImaj7 VII°7*

Harmonic minor
II V

C MELODIC MINOR (ascending)

* A new diatonic chord

I- II-* bIII+ IV* V VI°* VII°

I-(maj7) I-6* II-7* bIIImaj7(#5) IV7* V7 VI-7(b5)* VII-7(b5)*

Functional classifications are not absolutely clear cut in minor, but they are still based on the Tonic (I), Subdominant (IV), and Dominant (V) chords. I minor and bIII major chords are Tonic. V7 and VII°7 chords are Dominant. IV, II, bVI and bVII chords are all Subdominant. Harmonic cadences in minor keys are based on motion from Subdominant and/or Dominant chords to Tonic.

Line Cliche'

I-
F-

I-(maj7)
F-(maj7)/E

I-7
F-7/Eb

(Tonic)
VI-7(b5)
D-7(b5)

SDM
bVImaj7
Dbmaj7

Harmonic minor II V

II-7(b5)
G-7(b5)

V7(b9)
C7(b9)

I-
F-

V7/IV
F7

SDM
IV-7
Bb-7

SDM
bVII7
Eb7

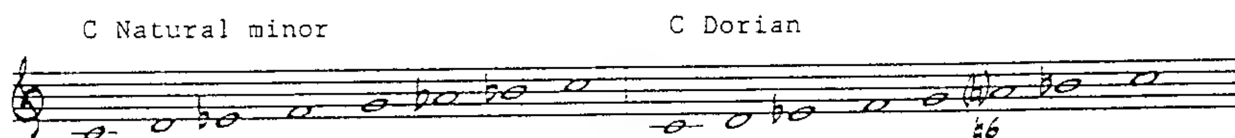
I-6
F-6

OTHER MINOR MODES

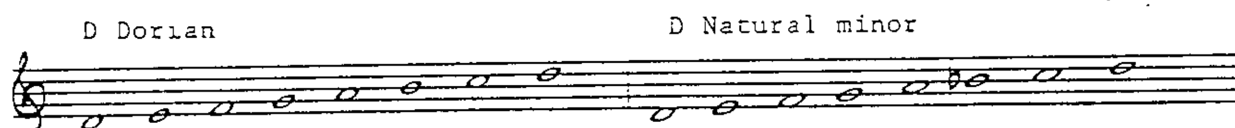
Any mode containing a minor 3rd above the tonic is considered minor. Although many different minor modes are available, the discussion here will be limited to Dorian, Phrygian and Aeolian. These are traditional church modes, with names from ancient Greek usage, frequently found in contemporary Western harmonic practice.

The modal ***quality*** of any of the less familiar modes is determined by a ***characteristic note***: the note in the scale which makes it different from natural minor (or different from Ionian for a major mode).

Dorian: The characteristic note of the Dorian mode is ♮6.
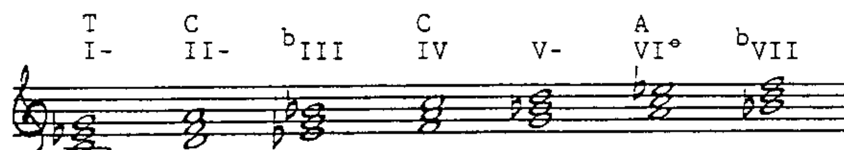


The Dorian mode is like a natural minor scale with a raised 6th. It can be found on the white keys of a keyboard by starting on D.

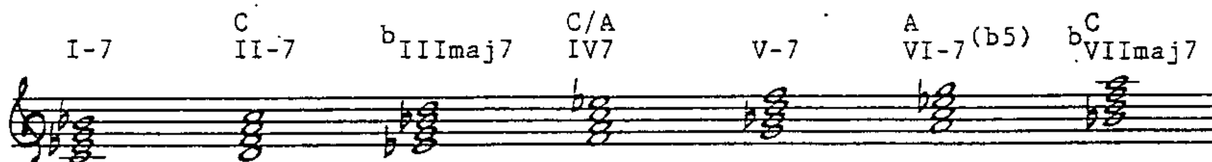


The accidentals for C Dorian come from B^{b} major, its relative major. The relative major of D Dorian is C major (no accidentals), a major 2nd below.

Because Dorian gets its modal quality from the characteristic note ♮ 6, most diatonic chords which contain that note are called ***characteristic chords*** .

It is important to remember that we are not using "Dorian" as the name for a II-7 chord scale here; we are referring to a ***tonic mode***. Listed below are the diatonic triads and seventh chords in the ***key*** of C Dorian.





"T" means ***tonic***. The letter "C" denotes a ***characteristic chord***, and "A" means an ***avoid chord***. "C/A" denotes a chord that contains the characteristic note, but is only sometimes modal sounding.

Unlike standard minor key harmony, modal harmony does not use subdominant and dominant categories. The I chord is tonic and the others are non-tonic. Characteristic chords establish the modal flavor, and a resolution from a characteristic chord to I is a modal cadence.

The diminished triad and the minor 7 (b5) chord are avoided in modal chord progressions, even when they contain the characteristic note. They are quite unstable, do not resolve effectively to I in these modes, and may imply the relative major key instead.

The following progression establishes the sound of C Dorian effectively.

C Dorian: I- C-(9) | C II-7 D-7 | C bVIImaj7 Bbmaj7 | I- C-

The bVIImaj7 was introduced in Harmony 2 as a non-diatonic cadential chord, frequently used in modal interchange to the parallel major key. The chord can now be derived from the Dorian mode. However, when it is used in a ***non-modal*** major key progression, it is considered subdominant (related to the IV chord).

F major: Imaj7 Fmaj7 | VI-7 D-7 | SD IVmaj7 Bbmaj7 | SD bVIImaj7 Ebmaj7 | Imaj7 Fmaj7

The next progression fails to establish C Dorian, even though it is "technically" correct.

C Dorian?: I-7 C-7 | C bVIImaj7 Bbmaj7 | C/A IV7 F7 | I-7 C-7

In this example, the F7, although characteristic, is V7 in the relative major key (Bb). Because of its instability and the harmonic rhythm of the phrase, F7 implies a tonic on Bb instead of C.

The same chord, IV7, has already been seen resolving to I in blues and in melodic minor progressions. It can also be used in an effective Dorian pattern, if the relative major sound is avoided.

C Dorian I- C-(9) V- G-7 I- C-(9) C/A IV7 F7 I- C-(9)

The use of a tonic triad instead of a seventh chord increases the stability of the mode.

Key Signatures:

Normal major and minor key signatures are used throughout this book, but modal key signatures are also possible. A modal key signature is the same as its relative major key signature (B^b Major for C Dorian). To avoid confusion, the name of the mode (eg: "F Phrygian") should be written along with a modal key signature. It is also possible, but probably time-consuming, to use no key signature and to add all appropriate accidentals before notes.

PHRYGIAN: The characteristic note of the Phrygian mode is ^{b}2.

C Natural minor C Phrygian

b2

The Phrygian mode is like a natural minor scale with a lowered 2nd. It can be found on the white keys of a keyboard by starting on E.

E Phrygian E Natural minor

b2

The accidentals for C Phyrgian come from A^b major, its relative major. The relative major of E Phyrgian is C major (a major 3rd below).

Listed below are the diatonic triads and seventh chords in C Phrygian, with the tonic chord, characteristic chords (containing b2), and avoid chords indicated.

T I-   C bII   bIII   IV-   A V°   bVI   C bVII-

T I-7   C bIImaj7   A bIII7   IV-7   A V-7(b5)   bVImaj7   C bVII-7

The bIII7 in Phrygian is avoided because it almost inevitably implies the relative major key.

Intended sound in C Phrygian: bIII7 I-7   bIII7 IV-7   bVII-7 bIII7 bVImaj7

Actual sound in Ab major: (V7/I) III-7   (V7/I) VI-7   II-7 V7/I → I

Eb7 C-7   Eb7 F-7   Bb-7 Eb7 → Ab

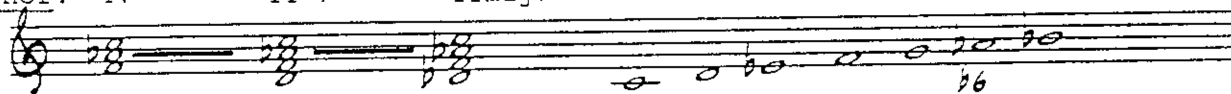
The following progressions establish the Phrygian mode effectively. (Key signatures are for the normal minor key, as usual).

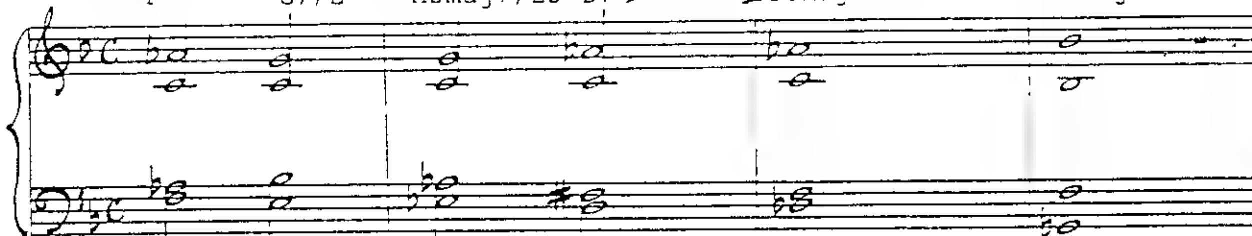
F Phrygian: I- F-   I-7 F-7   IV-7 Bb-7   C bIImaj7 Gbmaj7   I- F-

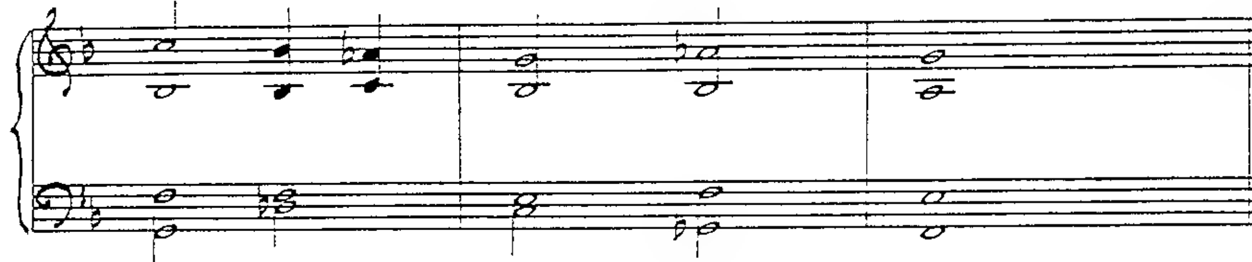
G Phrygian: I- G-   I-7 G-7/F   bVImaj7 Ebmaj7   IV-7 C-7   C bIImaj7 Abmaj7   I- G-

A Phrygian: I-7 A-7   C bVII-7 G-7   I-7 A-7   C bVII-7 G-7   C bIImaj7 Bbmaj7   I-7 A-7

bIImaj7 was introduced in Harmony 2 as a non-diatonic cadential chord. It can now be derived from the Phrygian mode. However, it is frequently used in *non-modal* major or minor key progressions. In these situations, bIImaj7 is considered a subdominant minor chord, related to the IV- and II-7 (b5) chords in natural minor. It does contain scale degree b6, common to all subdominant minor chords.



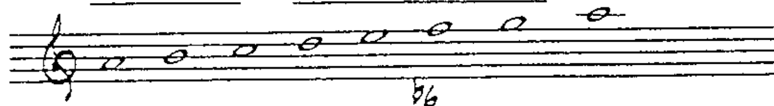




AEOLIAN: The Aeolian mode is identical to the natural minor scale, and therefore does not have an unusual modal quality. Most minor key harmony, however, draws on natural, harmonic and possibly melodic minor chords, as well as secondary and substitute secondary dominants. When a piece of music is composed ***exclusively*** of Aeolian chords and cadences, it does have a "modal" sound.

The characteristic note of the Aeolian mode is b6. The mode can be found on the white keys of a keyboard by starting on A, and its relative major is a minor 3rd above (C major).

A Aeolian = A Natural minor



Listed below are the diatonic triads and seventh chords in C Aeolian, with the tonic, characteristic and avoid chords indicated.

T I- | A II° | bIII | C IV- | V- | C bVI | bVII

I-7 | A II-7(b5) | bIIImaj7 | C IV-7 | V-7 | C bVImaj7 | C bVII7

The following progressions establish the Aeolian mode effectively.

D Aeolian:

I- D- | V-7 A-7 | C bVImaj7 Bbmaj7 | I- D- | I-7 D-7/C | C bVImaj7 Bbmaj7 | C IV-7 G-7

I- D- | bVII C(9) | C bVImaj7 Bbmaj7 | I- D- | ./.

G Aeolian:

I- G- | I-7 G-7/F | C bVImaj7 Ebmaj7 | C bVII7 F7

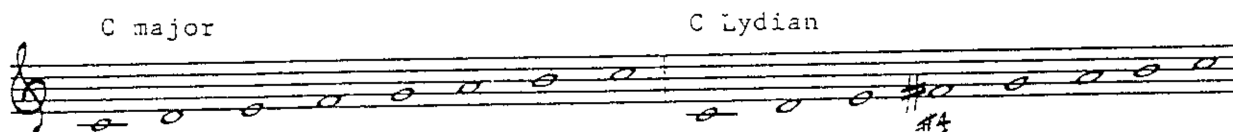
I- G- | ./. | C IV-7 C-7 | C bVII7 F7

I- G- | ./.

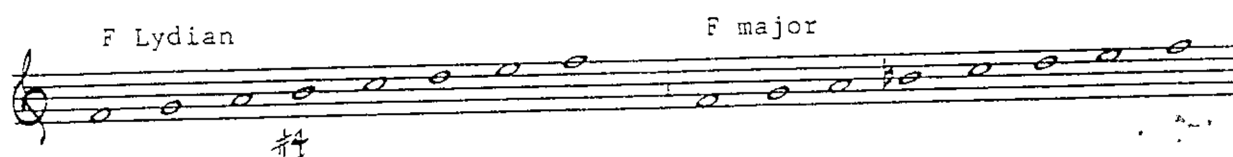
MAJOR MODES

Any mode containing a major 3rd above the tonic is considered major. (It is rare but possible to have a mode with both a major and a minor 3rd: this would be a special case). The major church modes are Ionian, Lydian and Mixolydian. Ionian is our major scale. The others will be described in terms of their characteristic notes: those notes which make them different from normal major (Ionian).

LYDIAN: The characteristic note of the Lydian mode is #4.
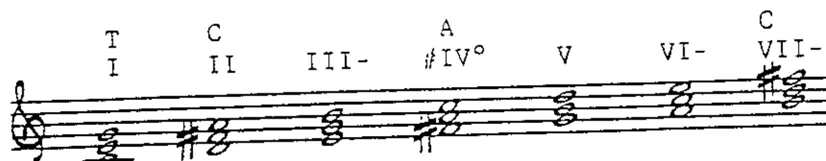


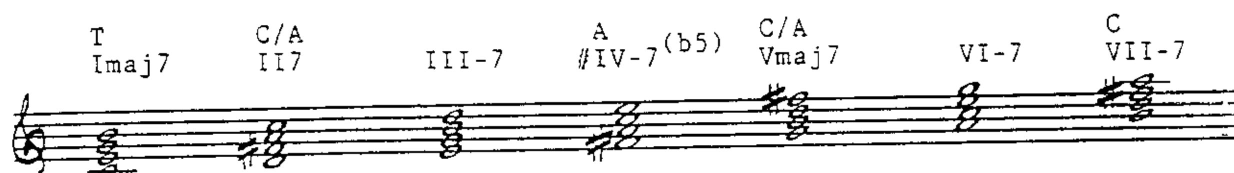
The Lydian mode is like a major scale with a raised 4th. It can be found on the white keys of a keyboard by starting on F.



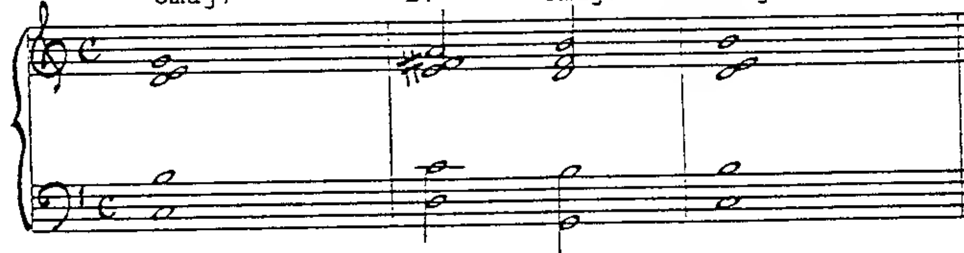
The accidentals for C Lydian come from G major, its relative major. The relative major of F Lydian is C major (a perfect 4th below).

Listed below are the diatonic triads and seventh chords in C Lydian, with the tonic, characteristic and avoid chords indicated.





The II7 (C/A) is similar to IV7 in Dorian in that it may imply the relative major key.



In the example above, D7 to Gmaj7 sounds like V7 to Imaj7 in G, and Cmaj7 sounds like IVmaj7.

The Vmaj7 (C/A) may sound like I in the relative major, even if it is not preceded by II7.

C Lydian? Imaj7 Cmaj7 | Vmaj7 Gmaj7 | Imaj7 Cmaj7

In this example, the progression really sounds like IV, I, IV in the key of G. In general, the relative major is easily implied, simply because major key chord patterns are so familiar.

II7 has already been seen as a special function dominant 7th. In the Lydian mode, the II major triad is usually more effective. Vmaj7 can be used if the harmonic rhythm is carefully controlled, and the I chord emphasized.

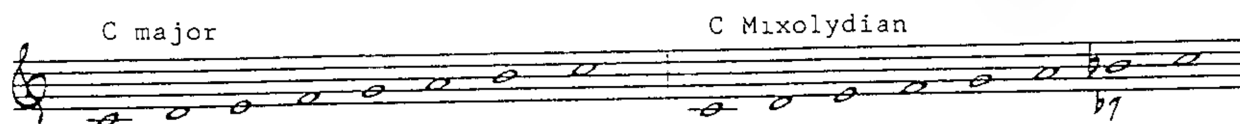
The following examples establish the Lydian mode effectively (normal major key signatures are used).

Bb Lydian: Imaj7 Bbmaj7 | C II C | Imaj7 Bbmaj7 | C VII-7 A-7 | Imaj7 Bbmaj7 | C II C

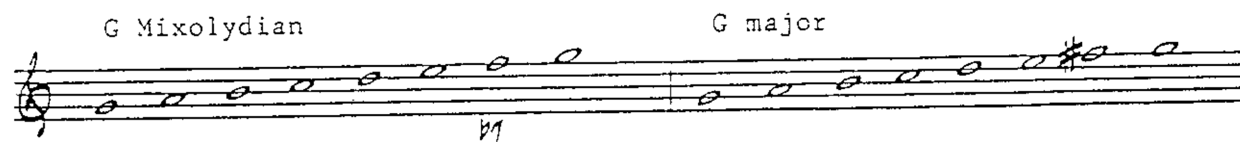
1. Imaj7 Bbmaj7 | C/A Vmaj7 Fmaj7 | 2. Imaj7 Bbmaj7

D Lydian: Imaj7 Dmaj7 | C VII-7 C#-7 | III-7 F#-7 | VI-7 B-7 | I D(9) | C VII-7 C#-7 | I D(9)

MIXOLYDIAN: The characteristic note of the Mixolydian mode is b7.
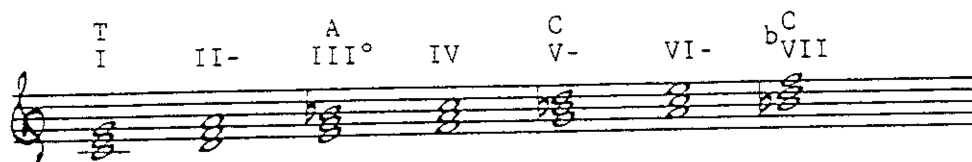


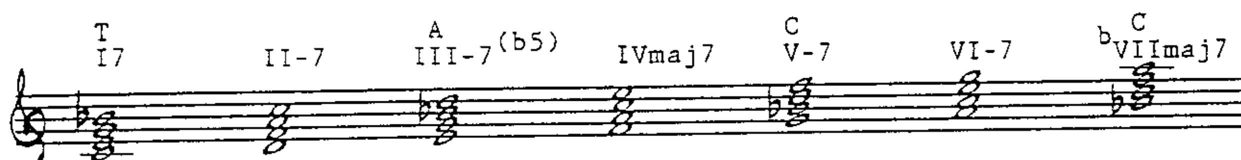
The Mixolydian mode is like a major scale with a lowered 7th. It can be found on the white keys of a keyboard by starting on G.



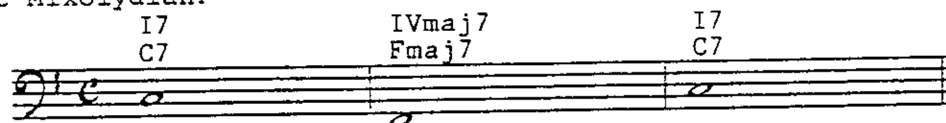
The accidentals for C Mixolydian come from F major, its relative major. The relative major of G Mixolydian is C major (a perfect 5th below).

Listed below are the diatonic triads and seventh chords in C Mixolydian, with the tonic, characteristic and avoid chords indicated.





The I7 chord in Mixolydian contains the characteristic note, making it a characteristic chord as well. The chord is of course a tonic blues chord, and only becomes a "modal" I chord in the presence of a Mixolydian cadence. The I major triad and the I7(sus4) are often used as Mixolydian tonic chords, since the I7 could, in some cases, imply the relative major.



The progression above really sounds like V7, Imaj7, V7 in the key of F because the sound of dominant cadence is so familiar.

The following progressions establish the Mixolydian mode effectively.

F Mixolydian:

I7(sus4) F7(sus4) | bVIImaj7 Ebmaj7 | I7(sus4) F7(sus4) | V-7 C-7 | I F

Eb Mixolydian: I Eb | bVII Db(9) | VI-7 C-7 | V-7 Bb-7 | I Eb(9) | II-7 F-7 | bVIImaj7 Dbmaj7 | I Eb(9)

Both V-7 and bVIImaj7 are familiar chords from the Dorian mode, but are considered Mixolydian cadential chords when resolving to I ***major***.

AVAILABLE TENSIONS

Available tensions for chords in the modes are like tensions for diatonic major key chords: 1) they must be available on the given chord, and 2) they must be diatonic to the mode. For example, an E-7 chord can take tensions 9 and 11.

E-7

1 b3 5 b7 9 11

In the E Phrygian mode, however, the note F# is not diatonic. F♮ is diatonic, but would be a b9, which is not available on a minor 7th chord. Therefore, a Phrygian I-7 chord takes tension 11 only.

The characteristic notes of all three minor modes (Dorian, Phrygian and Aeolian) are ***avoid*** notes on their I chords. We will make an exception for the Dorian mode here, but other modal voicing techniques must wait for "Advanced Modal Harmony". The modes are established harmonically with modal cadences.

To voice a ♮6, or tension 13, on the Dorian I-7, use an ***upper structure triad***.

D Dorian: E-/D-7 = D-7 (13, 11, 9) G/D-7 = D-7 (13, 11)

E- / D-7 G / D-7

As illustrated above, a Dorian voicing can be created with an upper structure triad above the original chord. The first is a minor triad a whole step higher, and the second is a major triad a perfect fourth higher.

The chord symbols for upper structure triads can be called ***compound chord symbols***. A compound chord symbol with a ***horizontal line***, like the ones above, indicates a chord over a chord - two chords played simultaneously. A compound chord symbol with a ***diagonal line***, like the ones below, indicates a chord over a single bass note.

E-/D = E-7 (3rd inversion) G/D = G (2nd inversion)

A chord over a single bass note may represent an inversion, as above, or a hybrid voicing of the kind discussed later in this book.

The characteristic notes of the two major modes *are* available on their I chords. The Mixolydian mode's b7 is a chord tone on I7, and the Lydian's #4 becomes tension #11 on I major in any form. Tension #11 is frequently a member of an upper structure triad.

C Lydian: D/Cmaj7 = Cmaj7 (13, #11, 9)   D/C (triad) = C (13, #11, 9)

D
Cmaj7

Tensions on other modal chords will be available on the chord and diatonic to the mode. Melodic approach notes should be either diatonic or chromatic, and are treated as usual.

MODAL INTERCHANGE

We have already examined the use of subdominant chords from natural minor in the parallel major key. This process, called modal interchange, accounts for several very common cadential patterns.

F:

Imaj7	V7/IV	IVmaj7	SDM IV-6	Imaj7
Fmaj7	F7	| Bbmaj7	Bb-6	| Fmaj7 ||

Imaj7	V7/IV	SDM IV-7	SDM bVII7	Imaj7
Fmaj7	F7	| Bb-7	Eb7	| Fmaj7 ||

II-7	(V7/I)	SDM bVImaj7	SDM bIImaj7	Imaj7
G-7	C7	| Dbmaj7	Gbmaj7	| Fmaj7 ||

The use of the harmonic minor II V in the parallel major key is another common form of modal interchange.

F:

Imaj7	subV7/II	II-7(b5)	V7/I	Imaj7
Fmaj7	Ab7	| G-7(b5)	C7(b9)	| Fmaj7 ||

Modal interchange, then, is a process involving the use of chords from one mode in the harmonic context of another parallel mode. It can also be described as ***borrowing*** a chord from a different mode on the same tonal center. The borrowed chord suggests the sound of its own mode without actually modulating to that mode.

Theoretically, any chord from any mode is a potential modal interchange (MI) chord. However, some chords are used in MI more frequently than others, and some almost never occur in other modes.

We may begin by listing the possible chords for each scale degree. We can then determine which of these are commonly used MI chords and how they are used. The available chords are listed below (triads, although not listed, are of course available instead of seventh chords).

SCALES FOR POSSIBLE I CHORDS

Chord	Modal Sources
Imaj7	Ionian, Lydian
I6	Ionian, Lydian
I-7	Aeolian, Dorian, Phrygian
I-6	Melodic, Dorian
I-(maj7)	Harmonic, Melodic
I7 or I7(sus4)	Mixolydian, Blues

These are all frequently used MI chords. Some progressions are actually based on a series of different I chords.

Imaj7 (Ionian)
Dmaj7
I7(sus4) (Mixolydian)
D7(sus4)

Imaj7 (Ionian)
Dmaj7
I6(#11) (Lydian)
E/D (triad)

Imaj7
Fmaj7 (Ionian)
I-7
F-7 (Aeolian)
(Ionian)
A-/F
(Lydian)
G/F

(Harmonic)
C/F-
(Dorian)
G-/F-7
(Ionian)
C/F

Other tunes modulate freely between parallel major and minor keys.

F: I- F- | Eb-7 Ab7 → bVImaj7 Dbmaj7

II-7(b5) G-7(b5) | V7/I C7(b9) → Imaj7 Fmaj7 | A-7(b5) V7/II D7(b9) →

→ II-7 G-7 | G-7/F | VII-7(b5) E-7(b5) | V7/VI A7(b9) → VI- D-

When a chord can be derived from more than one mode, the choice of chord scale and available tensions may be determined by the composer, arranger or performer. If the melody does not clearly indicate a scale, the harmonic context should be considered. The following guidelines will work in most situations.

Imaj7 and **I6** are normally Ionian unless #11 is indicated by the melody or chord symbol.

I-7 is normally Aeolian, although Dorian is becoming a more frequently used tonic mode. Phrygian is indicated only by the chord symbol or a melodic b2.

I-6 is nearly always melodic minor.

I-(maj7) can be either melodic or harmonic minor.

I7 is usually interpreted as a blues chord. In a series of different I chords, however, it is usually Mixolydian, and I7(sus4) is nearly always Mixolydian.

POSSIBLE II CHORDS

Chord	Modal Sources
II-7	Ionian, Dorian, Mixolydian, Melodic
II-7(b5)	Aeolian, Harmonic
bIImaj7	Phrygian (also a subdominant minor chord)
II7	Lydian (normally a special function dominant)

A MI chord other than I will take a ***chord scale*** that is diatonic to the ***tonic mode*** it comes from.

II-7 in a major key is normally from Ionian, so it takes a Dorian ***chord scale*** .

F Ionian
F Major: II-7
G-7 (Dorian)
1 T9 b3 T11 5 (6) b7

II-7 in a Mixolydian modal context, on the other hand, would take an Aeolian ***chord scale***.

F Mixolydian
F Mixo : II-7
G-7 (Aeolian)
1 T9 b3 T11 5 (b6) b7

II-7 in a Dorian modal context would take a Phrygian *chord scale*.

F- Dorian
F- Dorian: II-7
G-7 (Phrygian)
1 (b2) b3 T11 5 (b6) b7

II-7 in a melodic minor context would take a Phrygian ♮6 ***chord scale*** .

F- Melodic
F- Melodic: II-7
G-7 (Phrygian, ♮6)
1 (b2) b3 T11 5 (6) b7

By using these less familiar chord scales, II-7 can sound like an MI chord - it can imply a tonic mode ***other*** than Ionian.

Although we will not list every possible chord scale for every chord, this same process can be applied to any MI chord.

II-7(b5) is normally found in a harmonic minor II V. In a minor key it always takes a Locrian chord scale, but when used in a major key as a MI chord it may take a Locrian ♮9 scale.

F minor: II-7(b5)
G-7(b5) (Locrian)
1 (b2) b3 T11 b5 Tb13 b7

F Major: II-7(b5)
G-7(b5) (Locrian ♮9)
1 T9 b3 T11 b5 Tb13 b7

The A♮ (♮9) in Locrian ♮9 above is considered appropriate in F major because it is the major 3rd of the key.

II-7(b5) can also resolve up by step to bIIImaj7 and down by step to I.

I- F- | II-7(b5) G-7(b5) | bIIImaj7 Abmaj7 | IV-6 Bb-6 | I-6 F-6/C | IV-6 Bb-6

I-7 F-7/Ab | II-7(b5) G-7(b5) | Imaj7 Fmaj7

Other patterns for II-7(b5) would be extremely rare.

♭IImaj7 always takes a Lydian chord scale (diatonic to I- Phrygian).

C- Phrygian

♭IImaj7
Dbmaj7 (Lydian)

1 T9 3 T♯11 5 T13 7

When used in a simple major key context it is generally considered a subdominant minor chord.

Gmaj7 D7 SDM Ebmaj7 SDM Abmaj7 Gmaj7 C7 Bbmaj7 SDM Abmaj7 Gmaj7

In a more complex harmonic context, ♭IImaj7 sounds more like the characteristic Phrygian chord it is.

E minor: E- Fmaj7 Emaj7 B7 Cmaj7

A-7 Fmaj7 Emaj7 E-

II7 usually occurs as V7/V. When it resolves to I or IV it is considered a special function dominant chord. Therefore, it can rarely, if ever, be heard as a Lydian Modal Interchange chord.

POSSIBLE III CHORDS

Chord	Modal Sources
III-7	Ionian, Lydian
bIIImaj7	Dorian, Aeolian
bIIImaj7(#5)	Harmonic, Melodic
bIII7	Phrygian
III-7(b5)	Mixolydian

III-7 normally takes a Phrygian chord scale. An Aeolian chord scale would imply a tonic Lydian context.

C Lydian — III-7 E-7 (Aeolian)

bIIImaj7, a familiar natural minor chord, takes a Lydian scale when used in a major key. In a tonic Aeolian context it takes an Ionian chord scale.

C Aeolian — bIIImaj7 Ebmaj7 (Ionian)

bIIImaj7(#5) takes a chord scale derived from either melodic or harmonic minor.

bIIImaj7(#5) Ebmaj7(#5) (from C Melodic) — bIIImaj7(#5) Ebmaj7(#5) (from C Harmonic)

bIII7 is heard as subV7/II, or as a linking chord in a blues context. It is therefore not considered a real Modal Interchange chord from Phrygian.

III-7(b5) is also frequently used as a linking chord in blues progressions. However, it is clearly related to the I7 chord in Mixolydian and takes a Locrian chord scale.

C Mixolydian — III-7(b5) E-7(b5) (Locrian)

III-7 (b5) is usually found as the related II of V7/II.

Cmaj7 B7 → E-7(b5) A7(b9) → D-7 G7 → Cmaj7

POSSIBLE IV CHORDS

Chord	Modal Source
IVmaj7	Ionian, Mixolydian
IV7	Dorian, Melodic, Blues
IV-7	Aeolian, Phrygian, Harmonic
#IV-7(b5)	Lydian

IVmaj7 takes a Lydian chord scale.

IV7 is usually heard as a blues subdominant chord. As such, it generally takes a Lydian b7 or a blues scale.

IV-7 takes a Dorian chord scale. The IV- triad, IV-6 and IV-(maj7) chords are also used as Modal Interchange chords in the parallel major key. IV-6 and IV-(maj7) take melodic minor scales. (IV-6 may also take a Dorian scale.)

#IV-7(b5) is considered an altered subdominant major chord, and therefore does not have Modal Interchange function.

POSSIBLE V CHORDS

Chord	Modal Sources
V7	Ionian, Melodic
V7(b9)	Harmonic
V-7	Dorian, Mixolydian, Aeolian
V-7(b5)	Phrygian
Vmaj7	Lydian

V7 and **V7(b9)** are virtually the same chord. V7(b9) has a greater tendency towards resolution and suggests a tonic minor key.

V-7 is normally found as the related II of V7/IV. When it moves to a I major chord, however, it is an effective Modal Interchange cadential chord which usually takes a Dorian chord scale. A Phrygian chord scale on V-7 would imply a tonic natural minor context.

C- G-7 (Phrygian) C-

Cmaj7 G-7 (Dorian) Cmaj7

V-7(b5) occurs only as the related II-7(b5) of V7/IV, and is not considered a Modal Interchange chord.

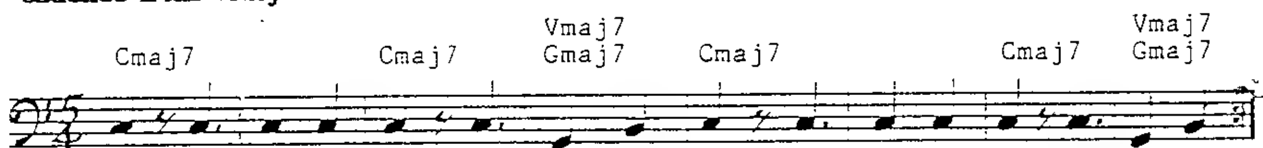
Vmaj7 is a possible Modal Interchange chord, but difficult to establish, since in context it tends to sound like a I chord.

Imaj7 Vmaj7 Imaj7
Cmaj7 | Gmaj7 | Cmaj7||

(really sounds like)

IVmaj7 | Imaj7 | IVmaj7||
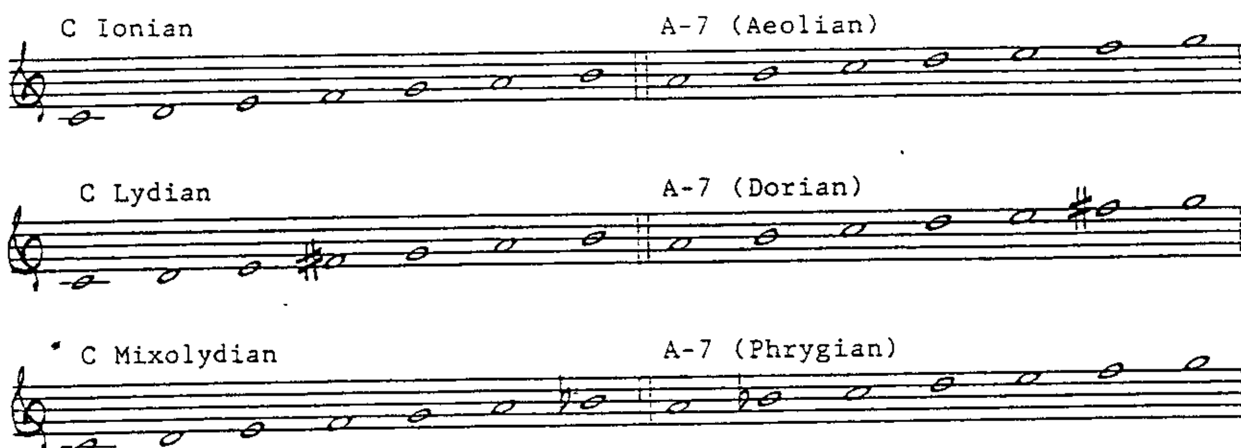
Rhythmic emphasis and duration on I can help to create the sound of a Lydian cadence from Vmaj7.



POSSIBLE VI CHORDS

Chord	Modal Sources
VI-7	Ionian, Lydian, Mixolydian
VI-7(b5)	Dorian, Melodic
bVImaj7	Phrygian, Aeolian, Harmonic

VI-7 normally takes an Aeolian chord scale. With a Dorian scale it implies a Lydian tonic mode, and with a Phrygian scale it implies a Mixolydian tonic mode.



VI-7(b5) is usually heard as a melodic minor chord, and therefore takes a Locrian ♮9 chord scale.

C Melodic Minor

VI-7(b5)
A-7(b5) (Locrian ♮9)

bVImaj7 normally takes a Lydian chord scale. With an Ionian scale it implies a tonic Phrygian mode.

C Phrygian

bVImaj7
Abmaj7 (Ionian)

POSSIBLE VII CHORDS

Chord	Modal Sources
VII-7 (b5)	Ionian, Melodic
bVIImaj7	Dorian, Mixolydian
bVII-7	Phrygian
VII-7	Lydian
bVII7	Aeolian
VII°7	Harmonic

VII-7(b5) usually occurs as the related II of V7/VI, and is typically preceded by a I chord. Its chord scale is Locrian.

Cmaj7

VII-7(b5)
B-7(b5)

V7/VI
E7(b9) → A-

It is rarely, if ever, used in a cadence to I.

bVIImaj7 is a frequently used cadential chord, and in major keys takes a Lydian chord scale. An Ionian chord scale would imply a tonic Dorian mode.

C Dorian

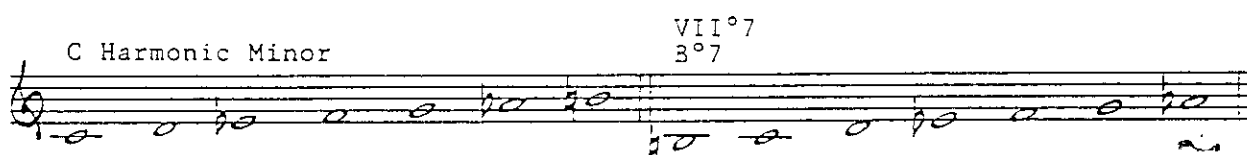
bVIImaj7
Bbmaj7 (Ionian)

bVII-7 , although relatively rare, can be an effective cadential Modal Interchange chord. It takes a Dorian chord scale.

VII-7 is also a strong Modal Interchange chord, especially when going to I. Its chord scale is Phrygian.

bVII7 is a familiar SDM chord which takes a Lydian b7 scale in major keys, and a Mixolydian scale in minor keys.

VII°7 sounds like the first inversion of V7(b9)/I. Its scale is based on the tonic harmonic minor.



PEDAL POINT AND OSTINATO

Pedal point derives its name from the organ, an instrument with pedals arranged like a keyboard for bass notes. A single bass note sustained through a series of chords is called ***pedal point***.

In most cases, a pedal point is sustained on the tonic or dominant note of the key. The following examples, although bland, are typical uses of tonic and dominant pedal points.

Cmaj7 D-7/C E-7/C Fmaj7/C E-7/C D-7/C Cmaj7

Cmaj7/G D-7/G E-7/G Fmaj7/G E-7/G D-7/G Cmaj7/G

Because a sustained pedal point creates a strong feeling of continuity within a key, a high level of tension and dissonance is acceptable above the pedal. Even "wrong" notes sound good if they resolve to available notes.

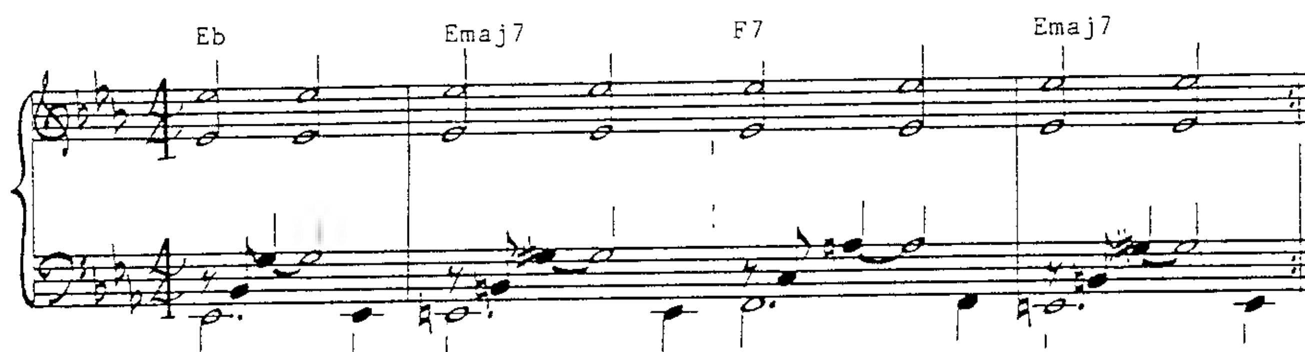
Fmaj7 E/F Eb/F E/F

The pedal in the example above is slightly rhythmicized. Some pedal points emphasize a rhythmic motive.

Ebmaj7 Gb/Eb

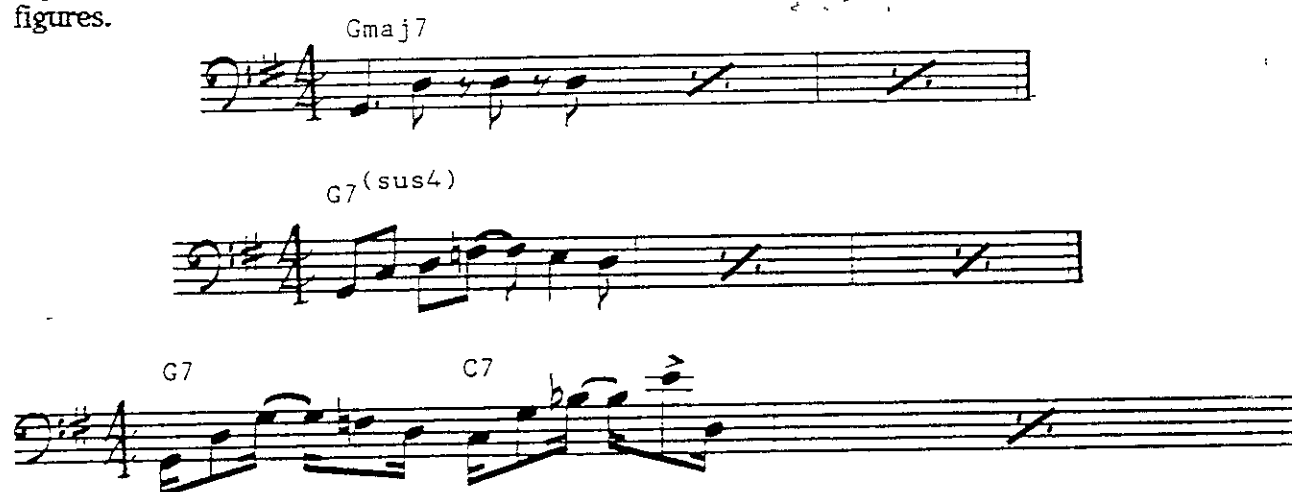
Fmaj7/Eb Emaj7/Eb Ebmaj7

Although a pedal point is usually the bass note, internal and soprano "pedals" are also possible.



A repeated figure involving more than one note is called an ***ostinato***. Like pedal point, it usually occurs as a bass figure, but it may be written in other ranges as well.

Ostinato figures usually emphasize the tonic of the key and often employ strong rhythmic ideas. The examples below represent some commonly used ostinato figures.



Pedal point and ostinato are often useful in modal contexts, since they can serve to establish a strong sense of the tonality. An ostinato can include both the tonic and characteristic notes of a mode.

Finally, two or more ostinato figures may be used together in different ranges to create a ***layered ostinato*** effect. Rhythms must be controlled to avoid conflicts which could be perceived as playing mistakes. The following examples could be used to establish any C minor tonality.

Pedal point and ostinato are frequently used for introductions, interludes and endings, but they may also be used in the main body of the music.

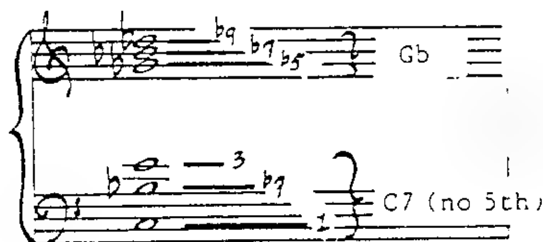
COMPOUND CHORD SYMBOLS

Compound chord symbols may be used to represent two kinds of structures:

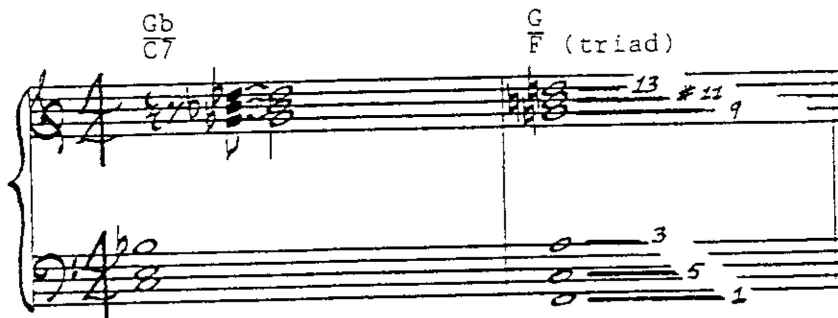
I. A chord over a chord: $\frac{Gb}{C7}$

A chord over a chord is called an upper structure triad or upper structure seventh chord, and the notes of the upper structure are interpreted as upper extentions of the chord below.

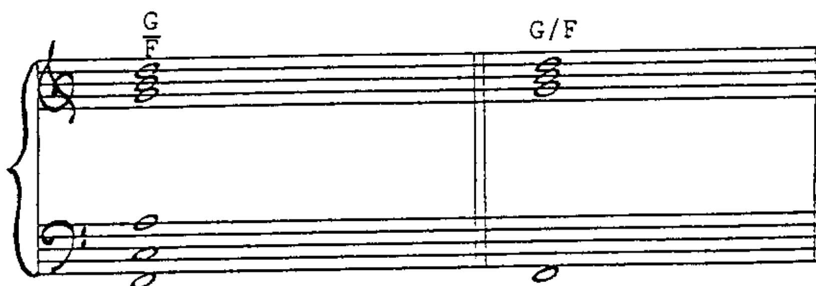
$\frac{Gb}{C7} = C7\binom{b9}{b5}$



The example above is an upper structure triad voicing for $C7\binom{b9}{b5}$. This kind of voicing is sometimes called a "polychord", since it combines two chords which can be heard both serparately and together as one voicing.



A chord over a chord is correctly written with a horizontal dividing line, while a chord over a single bass note uses a diagonal line.



However, this distinction is not universally observed, and it is useful to label a lower structure that is a major triad: $\frac{G}{F\text{ (triad)}}$

II. A chord over a bass note: Gb/C

A chord over a single bass note is usually one of the following:

A. An inversion: G^b/B^b

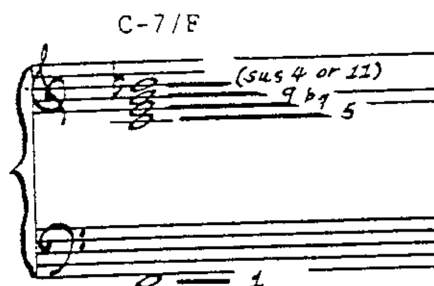
When the bass note is the 3rd, 5th or 7th of the upper structure, the voicing is interpreted as an inversion (one exception will be discussed later). The following are all inversions of C-7:

C-7/E^b C-7/G C-7/B^b

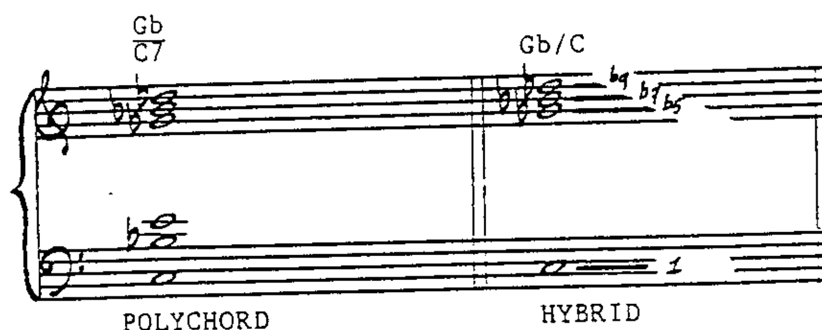
(The chord E^b6 has the same notes as C-7/E^b, so the specific interpretation must depend on the musical context at the time).

B. A hybrid structure: G^b/C

When the bass note is ***not*** the 3rd, 5th or 7th of the upper structure, the voicing is interpreted as a hybrid structure. The following example, C-7/F, is ***not*** C-7 over its 11th, because the ear does not perceive bass notes as tensions. The voicing actually sounds like, and therefore ***is***, F7sus4) or possibly F-7(sus4).



A hybrid voicing typically does not contain the third of the chord it represents. If we reduce our first example, Gb/C7, to a hybrid, it becomes G^b/C.



Although the hybrid does not contain an E, it still represents the sound of $C7^{b9}_{b5}$, and would normally resolve to F major or F minor. These voicings, then, are characteristically ambiguous sounding, because the 3rd would normally establish a major or minor quality, and would also create a tritone for dominant 7th chords.

The following are some typical hybrids:

G/C = Cmaj7

A-7/D = D7(sus4) or D-7

Cmaj7/F = Fmaj7(#11)

ANALYSIS OF COMPOUND CHORD SYMBOLS

The use of a compound chord symbol does not in any way change the functional analysis of the chord. If C7 is V7 in the key of F, then Gb/C7 and Gb/C are also V7 in the key of F.

Any inversion of C7, such as C7/G, also remains V7 in F.

POLYCHORDS: A chord over a chord is analyzed in terms of the function of the ***lower*** structure. The upper structure simply represents tensions or extensions of the basic chord. The following progression is analyzed in C in terms of the lower structures. The lower structures do not contain 5th's, which are considered unnecessary unless altered.

C:

Imaj7 — G/Cmaj7

V7/IV — Gb/C7

IVmaj7 — E-7/F (triad)

bIImaj7 — C-/D♭maj7

Imaj7 — G/Cmaj7

INVERSIONS : A chord over a bass note that is its 3rd, 5th or 7th is an inversion, and is analyzed as if it were in root position. The following example represents basically the same chord progression, but uses inversions instead of polychords. The sound is characteristically less complex.

C: Imaj7 V7/IV IV ♭IImaj7 Imaj7
Cmaj7 C/B♭ F/A D♭maj7/A♭ Cmaj7/G

The analysis above is the same as the analysis in the previous example because it is the same progression. Although the ***bass*** motion has changed, the ***root*** motion remains the same, and the chords are essentially of the same type.

HYBRIDS : A chord over a single bass note that is ***not*** an inversion (3rd, 5th or 7th in the bass) is usually a hybrid. Therefore, the bass note should be considered the root, and the notes of the upper structure used to determine the chord type.

In the following example, C is the root and the notes of the upper structure create a 5th, major 7th and major 9th above the root.

G/C

9 7 5 1

Since the voicing contains no 3rd above C, it could be interpreted as either Cmaj7 or C-(maj7). In most situations the more common Cmaj7 would be the obvious choice, but the overall harmonic context might indicate the atlernative. Because of the major 7th, it could not be interpreted as a dominant or minor 7th chord.

The next example uses the same chord progression, but with all hybrid voicings.

C: Imaj7 G/C — V7/IV Gb/C — IVmaj7 E-7/F — bIImaj7 C-/Db — Imaj7 G/C

Each chord type in this progression is determined by the relationship of the upper structure notes to the root. We have seen that G/C equals a formula of 1, 5, 7, 9. Gb/C equals a formula of 1, b5, b7, b9. E-7/F equals a formula of 1, 7, 9, #11, 13, and C-/Db equals a formula of 1, 7, 9, #11.

G/C — Gb/C — E-7/F — C-/Db

In each case the chord formula derived from the voicing strongly suggests the chord type, and therefore its function in the key.

In some situations, however, the hybrid formula does not clearly define its chord type or function.

Bb: Imaj7 F/Bb — II-7 or V7/V G-/C — V7(sus4) Eb/F — Imaj7 F/Bb

The G-/C in this example equals a chord formula of 1, 5, b7, 9, which could be either C-7 or C7(sus4). The harmonic rhythm would allow either interpretation, so unless the melody indicated one or the other, a choice would be made on the basis of the overall musical context and style. Either choice would be technically correct.

Another area of uncertainty involves an exception to the inversion rule (referred to earlier). A major triad a whole step above the bass note (F/E^b) has two alternative interpretations: 1) The inversion rule would make it a dominant 7th with the ^{b}7th in the bass (F7); 2) the hybrid interpretation would give it a Lydian sound (E^b major Lydian or E^{b}7, Lydian ^{b}7). Again, the choice must be made on the basis of musical context.

The first example below uses F/E^b as an inversion of F7. The second uses the same compound chord symbol, and the same voicing, as a hybrid version of E^b major Lydian.

F: I F — V7/IV F/Eb — IV Bb/D — I F/C — V7 C7

Eb: Imaj7 Ebmaj7 — Imaj. (Lyd.) F/Eb — I7(sus4) (Mixo.) Db/Eb — Imaj. (Lyd.) F/Eb

TENSIONS AND CHORD SCALES

Since the use of compound chord symbols does not change the rules of harmonic analysis, neither does it change the principles of tension and chord scale use. As always, the harmonic analysis dictates the choice of chord scale.

However, specific voicings for polychords and hybrids often indicate specific alternate chord scales. Our first example, $\frac{Gb}{C7}$ or Gb/C, clearly indicates an altered dominant scale, even if the chord is V7/I (in F) or V7/IV (in C). In summary, tensions that are included in the voicing should also be included in the chord scale.

Gb/C7 Gb/C C7(alt)

1 b9 3 b5 b7

The use of inversions similarly does not affect harmonic analysis. Inversions are nearly always used to accommodate a stepwise bass line, but the ***root*** motion stays the same even if the ***bass*** motion changes.

When the 3rd or 7th of a chord is in the bass, however, altered tensions are difficult to use because they sound more dissonant. In most cases, then, inverted chords sound best with chord tones and natural tensions.

HYBRID CONSTRUCTION

We have seen that it is possible to reduce a polychord to a hybrid: $\frac{Gb}{C7}$ can become Gb/C for a more ambiguous, indefinite sound.

It is also possible to create a hybrid voicing from a simple chord symbol if the same effect is desired.

A hybrid structure always creates a sense of harmonic instability, but its effect may be either dissonant or bland, depending on the intervals within the voicing. It can be used in isolated situations, in combination with other compound chord symbols, or in a series of hybrids to create a very ambiguous sounding progression.

A hybrid structure is made up of notes from the chord scale of the moment and retains the original root, but is indefinite sounding because it omits the 3rd of the chord. These principles are used in the following examples; the second is the same as the first except that some of the original chord symbols are replaced with hybrids.

(Ionian) Imaj7 Bbmaj7 — V7/III A7(#9) — III-7 D-7 — (Lyd. b7) subV7/II Db7(#11) — (Dor.) II-7 C-7 — (Mixo.b13 b9) V7/I F7(b9) — Imaj7 Bbmaj7

F/Bb — A7(#9 b13) — D-7 — Eb/Db — G-7/C — Eb-/F — Bbmaj7

Procedure

The procedure for deriving hybrid voicings from simple chord symbols can be described as follows:

1. Choose potential melody notes to be harmonized with hybrids; these are typically notes of long duration.

2. Analyze the progression to determine the appropriate chord scales.

3. Determine which triads and sevenths chords can be used as upper structures above the root. Melody notes (except approach notes) must be 1, 3, 5 or 7 of the upper structure.

   a. The upper structure is usually a major or minor triad, or a major, minor or dominant 7th chord.

   b. The upper structure must contain only notes from the chord scale of the moment.

   c. The upper structure should not contain any 3rd above the original root.

   d. The upper structure should not contain the original root itself.
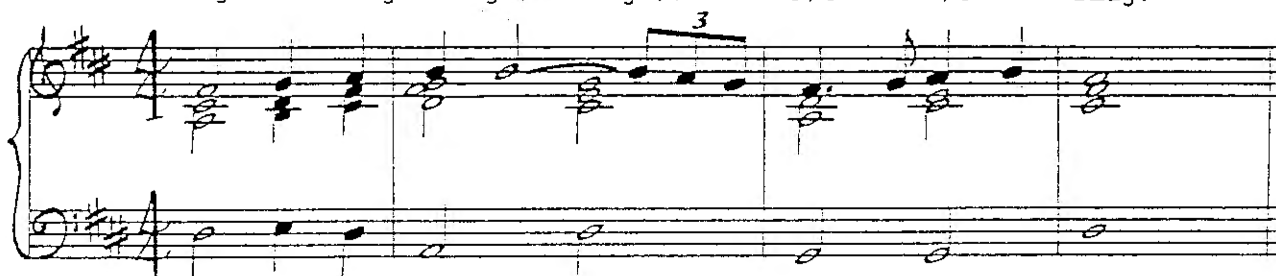
   e. There are no other avoid notes in the chord scale.

   f. Relative dissonance or blandness is controlled by the intervals between the root and the notes of the upper structure.

The procedure given above is followed in the following example:

	Dmaj7	(Dor.) A-7	(Mixo.) V7/IV D7	(Lydian) IVmaj7 Gmaj7		Dmaj7
Available Triads:		B- G E-	E-	F#- D	A F#- D	
Available Sevenths:		Gmaj7 E-7	Cmaj7	F#-7 Dmaj7	F#-7 Dmaj7	

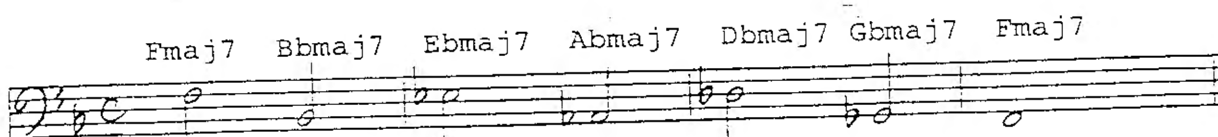
If any of the available upper structure triads or sevenths sound appealing, the progression may be rewritten with compound chord symbols.



The other voicings in the example above could also have taken compound chord symbols: F#- /D and G/E. This, however, would be unnecessarily complex, since they are exactly the same as Dmaj7 and E-7 respectively. Therefore, compound chord symbols should be used only for specific harmonic techniques.

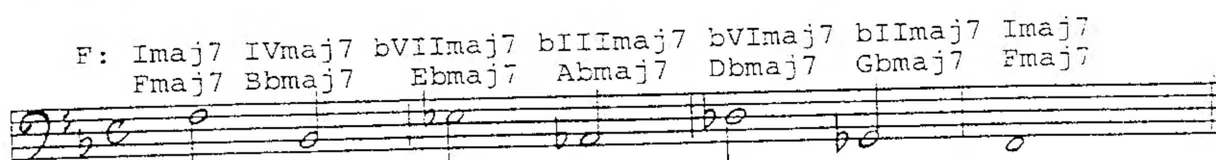
CONSTANT STRUCTURE CHORD PROGRESSIONS

A constant structure chord progression is a series of chords, all of the same type.



In the example above, each chord is a major 7th chord. It is therefore a constant structure progression, and its analysis can be undertaken from two different perspectives.

First, it is clearly a functional chord progression in the key of F:



However, since all the chords are of the same type, and the root motion is a consistent interval of descending perfect 5th's, the listener may hear the <u>pattern</u> of motion more clearly than harmonic function in a key. The description of patterns and sequences in constant structure progressions is called <u>non-functional analysis</u>.

The following example can be analyzed both functionally and non-functionally:

C: bIImaj7 Imaj7 bVImaj7 IVmaj7 bIImaj7 Imaj7
Dbmaj7 Cmaj7 Abmaj7 Fmaj7 Dbmaj7 Cmaj7

A non-functional analysis of the previous example would include the following considerations:

1. It is a constant structure major seventh chord progression.

2. The root motion is in descending thirds.

3. The root motion spells a D♭maj7 chord, which is the cadential chord in the progression.

4. The melody emphasizes common tones between chords, creating a smooth, linking quality.

5. The same melody note becomes richer sounding on each chord. It starts as the 5th of Cmaj.7, and becomes the 7th, 9th and #11th on successive chords.

Some constant structure progressions are purely non-functional; this means that analysis within a key is difficult, if not impossible, and the real meaning or sound of the music lies in root motion patterns and melodic and rhythmic sequences.

(Slow) Constant Structures
C-7 Eb-7 D-7 F-7

E-7 Ab:subV7/I A7(#11) Imaj7 Abmaj7

In this example, the first and second measures are almost identical: a melodic and harmonic sequence. The root motion pattern is up a minor third, then down a half-step. The E-7 acts as a pivot chord from non-functional to functional harmony. It is the last of the constant structure minor 7th chords, and it becomes the related II-7 of A7(#11).

As in the example above, most non-functional progressions involve a statement (measure 1), a repetition (measure 2), and then a variation of some kind (measure 3).

Tunes with constant structure sections nearly always contain familiar functional harmony as well. Constant structure passages usually end with root motion that is stepwise or down a perfect 5th.

Constant structure progressions are usually made up of major or minor seventh chords. Other chord types, although possible, are often considered either too unstable or too bland for this kind of harmonic motion.

Root motion can be either one consistent interval (all 3rds or all 5ths), or a pattern of two or possibly three intervals (up a 3rd, then down a 5th). In the following example, the final interval is stepwise in order to return to Eb:

Ebmaj7 Gmaj7 Cmaj7 Emaj7

Amaj7 Dbmaj7 Ebmaj7